

station for April, and at Olympia, Wash., the minimum, 27, recorded on the 7th, was as low as previously reported for April. The lowest temperature noted for the current month by a regular station of the Weather Bureau was -2, at Saint Vincent, Minn., on the 28th, and temperature below zero was reported at Rocky Mountain stations in the interior of Colorado and in northeastern southern Idaho. The minimum temperature was below 10 in northern North Dakota and northern Minnesota, and at stations in central and western Wyoming, and was below 20 in northern New England, and north of a line traced from east-central Lower Michigan to South Dakota, thence to central New Mexico, and thence to northwestern Washington. The highest minimum temperature was 64 at Key West, Fla., and the minimum values were above 50 over the southern part of the Florida Peninsula and along the immediate Gulf coast west of the mouth of the Mississippi River.

LIMITS OF FREEZING WEATHER.

The southern limit of freezing weather is shown on Chart V by a line traced from the Virginia coast to northern Georgia, thence to southern Illinois, and thence to southern Arizona. The western limit of freezing weather is shown by this line continued from south-central Arizona northwestward along the line of the Sierra Nevada Mountains to southwestern Oregon, thence eastward over the valley of the Columbia River, and thence to extreme northwestern Washington.

RANGES OF TEMPERATURE.

The greatest daily range of temperature is shown in the table of miscellaneous meteorological data. The greatest monthly range of temperature occurred on the middle-eastern slope of the Rocky Mountains and in the lower valley of the Red River of the North, where it exceeded 60. From those districts the monthly ranges decreased eastward to less than 30 on the southeast New England coast, southeastward to less than 20 over extreme southern Florida, southward to less than 30 on the west Gulf coast, and westward to less than 30 at stations on the middle and north Pacific coasts.

TEMPERATURE, JANUARY TO APRIL, INCLUSIVE.

For the period January 1 to April 30, 1892, the temperature averaged about normal in the lower lake region, in the upper Mississippi and Missouri valleys, on the middle-eastern and southeastern slopes of the Rocky Mountains, over the southern plateau region, and along the middle and south Pacific coasts. In the extreme northwest the mean temperature averaged about 3, over the northern plateau region about 2, and in New England, the upper lake region, on the northeast slope of the Rocky Mountains, and along the north Pacific coast about 1 above the normal temperature for the period named. In the south Atlantic and east Gulf states, at Key West, Fla., and over the middle plateau region the mean temperature was about 2 deficient, and in the middle Atlantic states, the Ohio Valley and Tennessee, and the west Gulf states the deficiency was about 1.

PERIODS OF HIGH TEMPERATURE.

The highest temperature of the month was noted from North Carolina over the middle Atlantic and New England states and the lower lake region from the 3d to 5th, the maximum temperature rising above 80 on the 3d in Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Alabama, eastern Tennessee, and Kentucky; along the middle and south Pacific coasts and over the west parts of the middle

and southern plateau regions from the 6th to 9th; in the south Atlantic states, the interior of the east and west Gulf states, and in western Missouri, eastern Kansas, Oklahoma and Indian territories on the 17th and 18th; on the north Pacific coast on the 20th; in the extreme northwest and over the west part of the upper lake region on the 22d and 23d; over a great part of the upper lake region and in the Ohio and upper Mississippi valleys on the 27th; and in the lower Missouri valley, on the middle-eastern slope of the Rocky Mountains, and over the east part of the middle plateau region on the 29th and 30th.

PERIODS OF LOW TEMPERATURE.

The principal cold wave of the month appeared on the northeast slope of the Rocky Mountains on the 8th, with temperature 16 to 22 below freezing, extended over the Missouri, upper and middle Mississippi, and lower Ohio valleys, and the Lake region on the 9th, and reached the Atlantic and east Gulf coasts on the 10th, attended by the lowest temperature of the month and carrying the line of freezing weather to northern South Carolina, southern Missouri, and Oklahoma Territory. The lowest temperature of the month was noted on the south Pacific coast from the 1st to 3d; on the north Pacific coast and in Texas south of the 30th parallel on the 7th; on the middle Pacific coast on the 17th and 18th; and in north and east parts of the Lake region, New York, and New England on the 24th and 25th.

FROST.

Frost injurious to vegetation was reported as follows: 4th, heavy frost injured vegetation at Eureka, Cal. 5th, frost injured garden vegetables at Dodge City, Kans. 9th, heavy frost caused much damage to early fruit and berries at Oklahoma City, Okla., damaged garden vegetation at Dodge City, Kans., and injured fruit at Burlington, N. C., and Platte River, Mo. 10th, the temperature fell to 30.7 at Knoxville, Tenn., and heavy frost damaged fruit; tender vegetation was killed at Nashville, Tenn.; corn and fruit were injured at Atlanta, Ga.; light frost injured tender vegetation at Columbia, S. C.; and heavy frost damaged early vegetation and fruit at Southport, N. C., and Richmond, Va.; light frost occurred as far south as Charleston, S. C. 11th, heavy frost damaged fruit and vegetables in North Carolina, western Virginia, and north-central Tennessee. 14th, ice and heavy frost formed at Dodge City, Kans.

16th, heavy frost destroyed vegetables in North Carolina, and injured cotton, corn, and vegetation on low ground about Augusta, Ga., and light frost was reported at Charleston, S. C., and Montgomery, Ala. 18th, frost nipped vines south and west of Fresno, Cal. 19th, heavy frost damaged fruit at Olympia, Wash. 21st, heavy frost injured fruit and vegetation about Dodge City, Kans. 26th, frost injured grapevines at La Grange, Cal., and injured grapes and tender vegetation at Lodi, Cal. 28th, a severe cold wave prevailed in the Northwest, the minimum temperature at Fort Assinaboine, Mont., 20, being the lowest noted at that station for the third decade of April. 29th, heavy frost killed tender plants at Fort Madison, Iowa. Frost was reported at stations in the Florida Peninsula between the 28th and 30th parallels on the 4th, 16th, and 25th; along the immediate middle Gulf coast on the 21st, 22d, 24th, and 25th; in central Texas north of the 31st parallel on the 7th; at Tucson, Ariz., on the 1st, 5th, and 6th; and at Los Angeles, Cal., on the 20th and 21st.

PRECIPITATION (expressed in inches and hundredths).

The distribution of precipitation over the United States and Canada for April, 1892, as determined from the reports of about 2,000 stations, is exhibited on Chart III. In the table of miscellaneous meteorological data the total precipitation and the departure from the normal are given for regular sta-

tions of the Weather Bureau. The figures opposite the names of the geographical districts in the columns for precipitation and departure from the normal show, respectively, the averages for the several districts. The normal for any district may be found by adding the departure to the current mean when

the precipitation is below the normal and subtracting when above.

In April the monthly precipitation is usually greatest in central Mississippi and at points along the immediate Pacific coast north of the 40th parallel, where it exceeds 8.00. It is 4.00 to 6.00 generally in the Gulf and south Atlantic states, Kentucky, Tennessee, and southern Missouri, on the southeast New England coast, in central Utah, and on the Pacific coast north of the 38th parallel. Over a large part of the Rocky Mountain and plateau regions the monthly precipitation is less than 1.00.

In April, 1892, the monthly precipitation exceeded 10.00 in an area extending from southern Tennessee to northern Louisiana, in small areas in southern Mississippi, southeastern Louisiana, south-central Kentucky, south-central Illinois, and at points along the Oregon and Washington coasts. Over a great part of New England, western New York, north-central Pennsylvania, Georgia, and Florida, and from central and southern Texas over the southern and central parts of the plateau region to the Pacific coast south of San Francisco, Cal., the precipitation for the month was less than 1.00.

DEPARTURES FROM NORMAL PRECIPITATION.

The monthly precipitation was in excess of the average for April in the central valleys, Virginia, and in the Pacific coast states north of the 40th parallel; elsewhere it was deficient. The greatest excess occurred on the Washington coast, at Valentine, Nebr., Saint Louis, Mo., and Springfield, Ill., where it was more than 4.00, and the most marked deficiency was noted from southern and central Alabama to the Atlantic coast between Wilmington, N. C., and Jacksonville, Fla., where it was 2.00 to 4.00. The deficiency was more than 2.00 from east-central New York to the Massachusetts and southwest Maine coasts, and in central Texas.

Considered by districts the average percentage of the normal in districts where the monthly precipitation was in excess was about as follows: North Pacific coast, 182; upper Mississippi valley, 179; Missouri Valley, 178; extreme northwest, 164; northern plateau region, 158; Ohio Valley and Tennessee, 157; northeastern slope, 155; middle Atlantic states, 112; upper lake region, 108; west Gulf states, 104. In districts where the precipitation was deficient the percentage of the normal was about as follows: South Pacific coast, 24; southeastern slope, 38; south Atlantic states, 40; New England, 52; middle-eastern slope, 53; Key West, Fla., 54; southern plateau, 67; lower lake region, 70; middle Pacific coast, 75; middle plateau, 82; east Gulf states, 88.

DEVIATIONS FROM AVERAGE PRECIPITATION.

The following table shows for certain stations, as reported by voluntary observers, (1) the average precipitation for April for a series of years; (2) the length of record during which the observations have been taken and from which the average has been computed; (3) the total precipitation for April, 1892; (4) the departure of the current month from the average; (5) and the extremes for April during the period of observation and the years of occurrence:

State and station.	(1) Average for the month of April.	(2) Length of record.	(3) Total for April, 1892.	(4) Departure from average.	(5) Extremes for April.			
					Greatest.		Least.	
					Am't.	Year.	Am't.	Year.
Arizona.	Inches.	Years	Inches.	Inches.	Inches.	T.	Inches.	1891
Fort Apache.....	0.84	16	1.36	+ 0.52	1.77	1878	0.53	1883
Fort Mohave.....	0.41	21	—	- 0.41	4.05	1871	0.00	1880
Whipple Barracks.....	1.68	20	0.58	- 1.10	2.86	1878	T.	1891
Arkansas.								
Lead Hill.....	4.11	10	4.30	+ 0.19	6.61	1882	1.57	1889
California.								
Fort Bidwell.....	1.65	20	2.28	+ 0.63	5.60	1880	0.16	1888
Riverside.....	1.07	11	0.21	- 0.86	2.15	1885	0.06	1890
Colorado.								
Las Animas.....	1.50	10	0.05	- 1.45	2.64	1886	0.05	1892

Deviations from average precipitation—Continued.

State and station.	(1) Average for the month of April.	(2) Length of record.	(3) Total for April, 1892.	(4) Departure from average.	(5) Extremes for April.			
					Greatest.		Least.	
					Am't.	Year.	Am't.	Year.
Florida.								
Merritt Island.....	4.25	14	1.04	- 3.21	9.74	1878	0.53	1885
Georgia.								
Forsyth.....	4.04	18	0.55	- 3.49	9.59	1883	0.55	1888, 1892
Idaho.								
Boise Barracks.....	1.64	18	1.25	- 0.39	2.43	1886	0.00	1890
Kentucky.								
Fort Sherman.....	1.45	8	2.60	+ 1.15	2.66	1892	0.00	1885
Louisiana.								
Centralia.....	3.31	13	11.96	+ 8.65	11.96	1892	1.40	1888
Indiana.								
La Fayette.....	3.08	12	7.51	+ 4.43	7.51	1892	0.84	1889
Pennsylvania.								
Fort Supply.....	2.73	13	0.55	- 2.18	8.60	1885	0.26	1891
Texas.								
Cresco.....	2.15	20	5.68	+ 3.53	5.68	1892	1.11	1883
Kansas.								
Independence.....	3.73	20	4.71	+ 0.98	6.68	1889	1.64	1883
Salina.....	2.70	9	1.29	- 1.41	7.30	1885	0.16	1888
Michigan.								
Kalamazoo.....	2.57	16	2.59	+ 0.02	8.00	1880	0.92	1876
Missouri.								
Sedalia.....	3.09	13	5.18	+ 2.09	5.18	1892	1.33	1888
Montana.								
Orono.....	2.93	22	1.12	- 1.81	5.08	1887	1.12	1892
Maryland.								
Cumberland.....	2.38	20	3.21	+ 0.83	6.50	1874	0.60	1879
Oklahoma.								
Fort Robinson.....	1.65	8	3.93	+ 2.28	3.93	1892	0.47	1886
Genoa (near).....	2.75	16	4.05	+ 1.30	5.32	1885	1.20	1878
Nevada.								
Browns.....	0.45	21	0.25	- 0.20	1.47	1878	0.00	*
Carson City.....	0.98	15	0.48	- 0.50	5.02	1880	0.03	1889
New Hampshire.								
Hanover.....	2.37	49	0.93	- 1.44	3.40	1874	0.38	1872
New Mexico.								
Deming.....	0.09	10	0.10	+ 0.01	0.50	1888	0.00	*
Fort Wingate.....	0.91	21	1.05	+ 0.14	2.70	1877	0.07	1874
New York.								
Cooperstown.....	2.02	38	1.38	- 1.54	4.10	1874	0.98	1881
Plattsburgh Barracks.....	1.65	21	0.97	- 0.68	3.98	1871	0.30	1881
North Carolina.								
Lenoir.....	3.59	20	3.10	- 0.49	7.80	1874	1.30	1876, 1885
Oklahoma.								
Fort Reno.....	2.47	9	1.12	- 1.35	6.02	1890	0.59	1887
Fort Sill.....	2.89	20	2.56	- 0.33	8.77	1890	0.77	1871
Oregon.								
Bandon.....	4.85	14	6.11	+ 1.26	11.35	1891	0.97	1885
Eola.....	2.70	21	5.07	+ 2.37	6.50	1883	0.89	1888
Pennsylvania.								
Duberry.....	2.48	23	1.54	- 0.94	5.07	1874	0.80	1882
Grampian Hills.....	3.44	21	2.34	- 1.10	6.11	1874	1.35	1870
Wellsborough.....	4.69	13	0.61	- 4.08	10.77	1886	0.61	1892
South Carolina.								
Statesburgh.....	2.30	11	1.30	- 1.00	4.17	1883	0.83	1888
South Dakota.								
Fort Sully.....	1.96	21	4.82	+ 2.86	4.82	1892	0.14	1884
Texas.								
Austin.....	3.80	19	0.10	- 3.70	7.78	1884	T.	1887
Silver Falls.....	3.07	6	0.00	- 3.07	4.58	1891	0.00	1893
Utah.								
Terrace.....	0.40	19	0.40	0.00	1.74	1884	0.00	*
Vermont.								
Strafford.....	2.73	19	1.05	- 1.68	12.20	1874	0.60	1873, 1881
Virginia.								
Dale Enterprise.....	3.66	12	2.94	- 0.72	7.13	1882	0.75	1881
Washington.								
Fort Townsend.....	1.59	16	2.42	+ 0.83	2.98	1883	0.38	1877
West Virginia.								
Parkersburg.....	3.16	7	3.97	+ 0.81	5.00	1887	2.20	1891
Wisconsin.								
Embarrass.....	2.79	21	2.50	- 0.29	5.20	1880	1.20	1889
Madison.....	4.39	23	3.94	- 0.45	5.48	1880	0.96	1887
Wyoming.								
Fort Washakie.....	1.65	9	2.33	+ 0.68	3.73	1883	0.51	1888

* Frequently.

PRECIPITATION, JANUARY TO APRIL, 1892.

For the period January to April, 1892, inclusive, the precipitation averaged about normal in the upper lake region, the middle Atlantic and east Gulf states, and over the middle and northern plateau regions. In the Missouri Valley and over the southern plateau region the precipitation was about one-half greater, and in the extreme northwest, in the upper Mississippi valley, and on the northeast and middle-eastern slopes of the Rocky Mountains it was one-tenth to three-tenths greater than usual. In the middle and south Atlantic, New England, and west Gulf states, at Key West, Fla., the Ohio Valley and Tennessee, the lower lake region, on the southeast

slope of the Rocky Mountains, and along the Pacific coast the precipitation was seven-tenths of the usual amount for the period named.

YEARS OF GREATEST PRECIPITATION FOR APRIL.

At Saint Louis, Mo., Springfield and Centralia, Ill., La Fayette, Ind., Keokuk, Davenport, and Cresco, Iowa, La Crosse, Wis., Huron and Fort Sully, S. Dak., Sedalia, Mo., Valentine and Fort Robinson, Nebr., Fort Sherman, Idaho, Walla Walla and Fort Canby, Wash., and Astoria, Oregon, the precipitation for the current month was the greatest on record for April. In Maryland, the District of Columbia, and eastern Virginia the greatest precipitation for April occurred in 1889; over the west part of the middle plateau region in 1887; over the east parts of the middle and northern plateau regions in 1886; on the Maine coast in 1884; in the interior of the south Atlantic states in 1883; along the middle and south Atlantic coasts, and in the lower lake region and upper Ohio valley in 1880; along the immediate south Atlantic coast in 1877; and in areas from New England to the lower Mississippi valley in 1874.

YEARS OF LEAST PRECIPITATION FOR APRIL.

At Portland and Orono, Me., Boston, Mass., New York and Albany, N. Y., Erie and Wellsborough, Pa., Charleston, S. C., Savannah, Ga., Jacksonville and Pensacola, Fla., San Antonio and Silver Falls, Tex., Las Animas, Colo., and Keeler, Cal., the precipitation for the current month was the least ever reported for April. On the middle and south Pacific coasts the least precipitation for April was noted in 1888; in the west Gulf states in 1887; on the north Pacific coast in 1885; and from New Mexico to Nebraska in 1880.

EXCESSIVE PRECIPITATION.

The following tables show, by states, the number of stations reporting monthly precipitation to equal or exceed 10.00; precipitation to equal or exceed 2.50 in 24 hours; and precipitation to equal or exceed 1.00 in 1 hour in April, 1892:

Monthly precipitation to equal or exceed 10.00.

State.	Number of stations.	State.	Number of stations.
Tennessee.....	13	Georgia.....	9
Louisiana.....	9	Oregon.....	4
Alabama.....	7	Arkansas.....	2
Mississippi.....	7	Kentucky.....	2
Illinois.....	5	Washington.....	2

Precipitation to equal or exceed 2.50 in 24 hours.

State.	Number of stations.	Dates.	State.	Number of stations.	Dates.
Louisiana.....	27	6, 13, 19-20, 20, 21, 21-22, 22, 23, 23-24, 24-25, 25,	Georgia	9	5-6, 5-7, 6.
Tennessee.....	21	2, 5-6, 6, 7, 10-11, 19-20, 20, 20-21, 20.	Iowa	7	3-3-4, 4, 17-18, 30.
Mississippi.....	18	1-2, 2, 4-6, 6, 6, 7, 18, 20, 21, 21-22.	Kentucky	5	20-21, 21.
Arkansas	15	3-4, 6, 6-7, 7, 19, 20.	South Dakota.....	5	3-3-4, 4, 4-5, 5.
Illinois.....	15	3-3-4, 4, 17.	North Carolina.....	3	5-6, 6, 21-22.
Missouri.....	14	3-3-4, 30.	California	2	1-2, 13-14.
Alabama.....	13	4-5, 5-6, 5-7, 6, 6-8, 7, 19.	Indian Territory	2	27-28, 28.

Precipitation to equal or exceed 1.00 in 1 hour.

Alabama	3	6, 7, 28.	Indian Territory	1	28.
Louisiana	3	21, 22.	Iowa	1	17.
Texas	3	29.	Mississippi	1	21.
Missouri	2	3-4.	North Carolina	1	22.
Arkansas	1	20.	Oklahoma Ter.....	1	27.
Illinois	1	3.	South Dakota.....	1	25-26.

Table of excessive precipitation, April, 1892.

State and station.	Monthly rainfall 10 inches, or more. inches.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall 1 inch, or more, in one hour.	
		Amt.	Day.	Amt.	Time.
<i>Alabama.</i>					
Carrollton	2.69	6			
Cordova	6.91	6-8			
Decatur a.....	11.14	5-42	5-6		
Double Springs	4.31	5-6			
Florence b.....	16.07	8.71	5-7		
Gadsden	14.78				
Jasper		7.43	5-7		
Mountain Home		5.69	5-6		
Newburgh	11.57				
Scottsboro	13.20	4.42	5	1.17	1 60
Do.....	13.85	5.55	5	1.75	1 00
Talladega		3.13	19		
Tuscumbia a.....	13.94	6.84	7	4.24	1 45
Valley Head	11.31	6.89	5-6		
<i>Arkansas.</i>					
Arkadelphia	2.80	6			
Arkansas City	10.22	3.60	7		
Black Rock		3.42	20	3.42	0 40
Dallas		3.25		3-4	
El Dorado		2.85		6	
Gaines Landing	11.06	3.50	7		
Helena a.....		2.53	7		
Do.....		2.59	20		
Helena b.....		2.73	7		
Hot Springs		2.50	6-7		
Little Rock		3.84	20		
Lonoke		2.50	7		
Do.....		4.25	20		
Madding		2.03	7		
Marshall		4.66	3-4		
Newport a.....		2.53	20		
Newport b.....		3.85	20		
Rogers		3.50	19-20		
Stuttgart		3.00	6-7		
<i>California.</i>					
Julian	5.92	1-2			
Upper Mattole	3.74	13-14			
<i>Florida.</i>					
Myers	3.90	24			
<i>Georgia.</i>					
Adamsville	10.73	5.63	5-6		
Atlanta		3.19	5-6		
Canton		3.31	5-6		
Dahlonega		4.53	5-6		
Diamond	10.82	5.58	6		
La Fayette	10.45	8.55	5-7		
Marietta		4.25	6		
Rome	10.72	5.54	5-6		
Toccoa		3.79	5-6		
<i>Illinois.</i>					
Bloomington	2.78	3-4			
Carlinville		3.30	3-4		
Do.....		3.03	17		
Centralia	11.96	1.00	3		
Charleston		6.12			
Collinsville	10.11				
Ellsworth	10.27	5.21	3		
Fairmount		4.00	4		
Jordan's Grove	11.03	2.60	3		
Lanark		2.64	3		
Pana	11.99	7.00	3-4		
Paris		2.90	3-4		
Philo				1.00	0 45
Rushville		3.52	3-4		
Springfield		2.71	3-4		
Sycamore		2.70	3-4		
Watseka		2.83	3-4		
<i>Indiana.</i>					
Terre Haute	3.11	3-4			
<i>Indian Territory.</i>					
Healdton	5.97	28	5.97	3 00	28
South McAlester	2.08	27-28			
<i>Iowa.</i>					
Bonaparte	2.52	3			
College Springs	2.58	30			
Fort Madison	2.70	3			
Keokuk	2.64	3-4			
Kosciusko		2.00	4		
Mooar		3.00	3		
Murray	2.58	17-18	1.50	1 30	17
<i>Kentucky.</i>					
Bowling Green	10.84				
Falmouth		2.89	21		
Franklin	11.78	3.72	20-21		
Louisville		3.00	20-21		
Shelbyville		3.23	20-21		
Springfield		3.70	20-21		
<i>Louisiana.</i>					
Abbeville		3.90	21		
Alexandria		2.73	2-3		
Amité City		3.15	21		
Do.....		2.90	23-24		
Baton Rouge		5.97	21-22		
Do.....		2.65	24-25		
Cheneyville		3.60	21	3.60	2 30
Clinton		3.26	21		
Do.....		2.78	25		
Coushatta a.....		2.52	6		
Donaldsonville		3.10	22		
Emilie		6.62	21-22		

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall in inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.		Day.
		Amt.	Day.	Amt.	Time.	
Louisiana—Continued.						
Farmerville.	Inches. 10.00	Inches. 4.00	13			
Grand Cane.		3.00	6			
Do.		2.80	20			
Hammond.	10.63	5.98	21-22			
Houma.		4.05	24-25			
Jeanerette.		4.50	21			
Do.		2.85	24			
Luling.		3.93	21			
Marksville.		3.00	20			
Matrepas.		5.42	22			
Do.		2.55	25			
Minden.	10.44					
Monroe.	10.63					
New Iberia.		3.65	21			
Do.		2.65	25			
New Orleans.	10.44	7.49	21-22	2.90 2 00	21	
Do.				1.00 1 00	22	
North Louisiana Experimental Station.	10.06					
Paincourtville.		4.89	21			
Do.		3.10	25			
Plaquemine.	10.93	4.40	21			
Do.		3.03	24			
Roseland.		3.99	21			
Do.		2.89	24			
Shreveport.		2.98	19-20			
Sugar Experimental Station.	11.75	8.12	21-22			
Thibodeaux.		3.27	21			
Wallace.	11.20	6.75	21			
West End.		6.80	21-22			
Michigan.						
Birmingham.		3.36	4-5			
Mississippi.						
Agricultural College.		5.87	4-6			
Batesville.		2.75	6-7			
Bay Saint Louis.	14.30	9.60	21-22			
Booneville.	14.99	3.25	2			
Do.		3.00	4			
Do.		3.00	6			
Brookhaven.		2.80	21			
Columbus a.		5.40	6-7			
Greenville.		3.81	6-7			
Kosciusko.	12.60	5.80	6			
Logtown.		4.52	21	4.52 4 00	21	
Louisville.		3.80	6			
Moss Point.		4.22	20			
Palo Alto.		7.81	6-7			
Pontotoc.	10.13	2.90	1-2			
Ship Island.		7.48	21-22			
University.		10.67	4.36	1-2		
Vaiden.	13.72	9.92	4-6			
Water Valley.		2.92	2			
Yazoo City.	11.23	3.39	6-7			
Missouri.						
Adrian.		3.40	3	2.40 1 00	3	
Carrollton.		3.50	3-4			
Darksville.		3.90	3			
East Lynne.		2.81	3-4			
Forest Park.		2.66	3-4			
Lamonte.		2.66	3-4			
Mansfield.		3.10	3-4			
Marshall.		2.60	4			
Mine La Motte.		4.10	3			
Pickering.		2.79	30			
Rolla.		2.60	3-4			
Saint Louis.		2.52	3-4			
Shelbyville.		3.50	3-4			
Zeitonia.		4.09	3-4	2.28 1 00	4	
North Carolina.						
Horse Cove.		2.56	6			
Louisburgh.		2.52	21-22			
Murphy.		3.91	5-6			
Raleigh.				1.05 0 35	22	
Oklahoma.						
Stillwater.				1.86 1 45	27	
Oregon.						
Astoria.		10.27				
Gardiner.		10.27				
Glenora.		17.20	2.70	24		
Langlois.		14.92				
South Dakota.						
Aberdeen.		3.45	4			
Oelrichs.		3.57	3			
Saint Lawrence.		3.95	4			
Spearfish.		2.50	3-4			
Wolsey.		2.75	4-5	1.38 0 30	25-26	
Tennessee.						
Arlington.		4.64	20-21			
Ashwood.						
Bethel Springs.		2.54	2			
Brownsville.		2.84	19-20			
Charleston.		4.60	5-6			
Chattanooga.		2.96	5-6			
Clarksville.		3.53	19-20			
Columbia.						
Covington b.		2.60	20			
Dunlap.		10.35	4.27	6		
Dyersburgh.		10.45	2.58	19		
Fayetteville.		11.44	4.14	5-6		
Hohenwald.		10.34				
Jackson.		2.90	20			
Johnsonville.		12.29	3.82	20-21		

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall in inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.		Day.
		Amt.	Day.	Amt.	Time.	
Tennessee—Continued.						
Knoxville.	Inches. 10.96					
Loudon.		3.00	6			
Lynville.		2.80	20			
McKenzie.		4.05	24-25			
McMinnville.		4.50	21			
Memphis.		2.85	24			
Rockwood.		3.93	21			
Savannah.		5.42	22			
Sharp.		2.55	25			
Springdale.		5.42	22			
Waynesborough.		2.55	25			
Texas.						
Brazoria.	Inches. 10.95					
Brownwood.		3.65	21			
Gainesville.		2.65	25			
Houston.		2.60	20			
Washington.						
Aberdeen.	Inches. 10.84					
Neah Bay.		11.00				

MAXIMUM RAINFALL IN ONE HOUR OR LESS.

The following table is a record of the heaviest rainfall during April, 1892, for periods of five and ten minutes and one hour, as reported by regular stations of the Weather Bureau furnished with self-registering gauges:

Station.	Maximum fall in—					
	5 min.	Date.	10 min.	Date.	1 hour.	Date.
Atlanta, Ga.	Inch. 0.39		Inch. 0.55		Inch. 0.92	
Bismarck, N. Dak.	0.08	26	0.12	26	0.31	26
Boston, Mass *						
Buffalo, N. Y.						
Cincinnati, Ohio.	0.10	2, 3	0.15	2, 3	0.40	2
Chicago, Ill.	0.13	3	0.15	3	0.24	4
Cleveland, Ohio.	0.05	3	0.07	3	0.23	3
Denver, Colo.	0.03	18	0.05	18	0.20	18
Detroit, Mich.	0.15	5	0.22	5	0.28	5
Dodge City, Kans.						
Duluth, Minn.						
Eastport, Me.	0.02	23	0.04	23	0.16	23
Galveston, Tex.	0.20	25	0.30	25	0.75	25
Indianapolis, Ind.	0.27	25	0.48	28	0.90	28
Jacksonville, Fla.	0.03	7	0.05	7	0.09	7
Jupiter, Fla.	0.10	14	0.11	14	0.30	14
Kansas City, Mo.	0.25	17	0.45	17	0.50	17
Key West, Fla.	0.20	27	0.25	27	0.32	27
Marquette, Mich.	0.06	1	0.11	1	0.25	1
Memphis, Tenn.	0.30	20	0.50	20	0.75	20
Milwaukee, Wis.	0.12	27	0.14	27	0.35	27
New York, N. Y.						
New Orleans, La.	0.20	21	0.32	21	1.70	21
Norfolk, Va.	0.20	22	0.25	7, 22	0.85	22
Philadelphia, Pa.	0.02	14, 22	0.04	14, 22	0.15	22
Philadelphia Water Works.	0.02	22	0.03	22	0.15	22
Pittsburg, Pa.						
Portland, Oregon.	0.03	24	0.05	24	0.25	24
Saint Louis, Mo.						
Saint Paul, Minn.						
Salt Lake City, Utah.	0.03	12	0.05	12	0.15	12
San Diego, Cal.	0.01	3	0.02	3	0.10	3
San Francisco, Cal.						
Savannah, Ga.						
Washington, D. C.	0.15	22	0.20	22	0.25	22
Wilmington, N. C.	0.08	14	0.11	14	0.20	7

* Self-register out of order.

† Less than 0.05 in 1 hour.

The following tables show the number of years for which monthly precipitation to equal or exceed 10.00 inches, daily precipitation to equal or exceed 2.50 inches, and hourly precipitation to equal or exceed 1.00 inch has been reported in the several states and territories for April during the last 22 years:

Excessive monthly precipitation.

State.	No. years noted.	State.		No. years noted.
		1	2	
Louisiana.	11	Texas.		6
Mississippi.	11	Georgia.		5
Arkansas.	9	Illinois.		3
North Carolina.	8	Indiana.		3
Alabama.	8	Kansas.		3
Tennessee.	7	Virginia.		3

Excessive monthly precipitation—Continued.

State.	No. years noted.	State.	No. years noted.
Florida.....	2	Vermont	1
Kentucky.....	2	Wisconsin	1
Maryland.....	2	Arizona	1
New Hampshire.....	2	California	1
New Jersey.....	2	Delaware	2
Oregon.....	2	District of Columbia	2
Washington.....	2	Idaho	2
Ohio.....	2	Iowa	2
South Carolina.....	2	Maine	2
Colorado.....	1	Minnesota	1
Connecticut.....	1	Montana	1
Indian Territory.....	1	Nevada	1
Massachusetts.....	1	New Mexico	1
Michigan.....	1	Rhode Island	1
Missouri.....	1	The Dakotas	1
Nebraska.....	1	Utah	1
New York.....	1	West Virginia	1
Pennsylvania.....	1	Wyoming	1

Excessive daily precipitation (24 hours).

State.	No. years noted.	State.	No. years noted.
Louisiana.....	15	Pennsylvania.....	3
Texas.....	15	Colorado	2
Alabama.....	14	Massachusetts	14
Arkansas.....	14	Minnesota	14
Georgia.....	14	Oregon	14
Tennessee.....	14	Vermont	13
Mississippi.....	13	Wisconsin	13
North Carolina.....	13	Maine	10
Florida.....	10	Michigan	10
Kansas.....	10	Montana	9
The Dakotas	9	New Jersey	9
Illinois.....	9	New Mexico	8
Indiana Territory.....	8	Ohio	8
Indiana.....	8	Rhode Island	6
Iowa.....	6	Wyoming	6
Kentucky.....	6	Arizona	4
Missouri.....	6	Nebraska	5
Nebraska.....	4	District of Columbia	4
California.....	4	Idaho	4
Maryland.....	4	Nevada	4
South Carolina.....	4	New Hampshire	4
Virginia.....	4	Utah	3
Connecticut.....	3	Washington	3
New York.....	3	West Virginia	0

Excessive hourly precipitation.

State.	No. years noted.	State.	No. years noted.
Texas.....	11	California	0
Arkansas.....	5	Colorado	0
Florida.....	4	Connecticut	0
Kansas.....	4	Delaware	0
Tennessee.....	4	District of Columbia	0
Illinois.....	4	Idaho	0
Iowa.....	4	Indiana	0
North Carolina.....	4	Kentucky	0
Alabama.....	3	Maine	0
Georgia.....	3	Massachusetts	0
Louisiana.....	3	Minnesota	0
Mississippi.....	3	Montana	0
Missouri.....	2	Nevada	0
South Carolina.....	2	New Hampshire	0
The Dakotas	2	New York	0
Indiana Territory.....	1	Oregon	0
Maryland.....	1	Rhode Island	0
Michigan.....	1	Utah	0
Nebraska.....	1	Vermont	0
New Jersey.....	1	Virginia	0
New Mexico.....	1	Washington	0
Ohio.....	1	West Virginia	0
Pennsylvania.....	1	Wisconsin	0
Arizona.....	0	Wyoming	0

The following tables give exceptionally heavy monthly, daily, and hourly precipitation reported for April during the last 22 years:

Monthly.

Station and state.	Am't.	Year.	Station and state.	Am't.	Year.
Summit, Cal	Inches. 30.40	1880	Mount Washington, N. H.	Inches. 23.41	1878
Jackson, Miss	23.80	1874	Newport, Ark.	21.20	1886
Paulding, Miss	23.60	1871	Brookhaven, Miss.	20.35	1876

Daily (24 hours).

Station and state.	Amount.	Date.	Station and state.	Amount.	Date.
Terrell, Tex.	Inches. 18.00	22-24, 1879	Point Pleasant, La.	6.02	2, 1885
Mount St. Helena, Cal.	14.70	20-21, 1880	Hammond, La.	5.98	21-22, 1892
Point Pleasant, La.	12.28	5, 1885	Montgomery, Ala.	5.97	2, 1876
Fort Smith, Ark.	11.00	23, 1879	Headton, Ind. T.	5.97	28, 1892
Vaiden, Miss.	9.92	4-6, 1892	Baton Rouge, La.	5.97	21-22, 1892
Healdsburg, Cal.	9.73	20-21, 1880	Julian, Cal.	5.92	1-2, 1892
Bay Saint Louis, Miss.	9.60	21-22, 1892	New Haven, Conn.	5.90	3-4, 1876
New Orleans, La.	9.22	7-8, 1883	Baltimore, Md.	5.82	25-26, 1889
Fayette, Miss.	9.00	15-16, 1880	Kosciusko, Miss.	5.80	6, 1892
Florence, Ala.	8.71	5-7, 1892	Columbus, La.	5.75	3, 1890
Sugar Ex. Station, La.	8.12	21-22, 1892	Saint Marys, Ga.	5.70	2-3, 1876
Gallinas, Tex.	8.12	20-21, 1891	Jasper, Ga.	5.69	5-6, 1892
Melissa, Tex.	8.00	22-23, 1879	Adamsville, Ga.	5.63	5-6, 1892
Palo Alto, Miss.	7.81	6-7, 1892	Colorado, Tex.	5.60	23, 1890
Austin, Mo.	7.50	8-9, 1891	Diamond, Ga.	5.58	6, 1892
New Orleans, La.	7.49	21-22, 1892	Scottsboro, Ala.	5.55	5, 1892
Ship Island, Miss.	7.48	21-22, 1892	Kendall Green, D. C.	5.54	25-26, 1889
Brookhaven, Miss.	7.45	17-19, 1874	Rome, Ga.	5.54	5-6, 1892
Gadsden, Ala.	7.43	5-7, 1892	New Orleans, La.	5.51	17, 1876
Point Pleasant, La.	7.35	6-7, 1883	Clarksville, Tex.	5.50	22-23, 1879
Santa Maria, Tex.	7.34	19-20, 1888	Abingdon, Ill.	5.50	13, 1876
Mobile, Ala.	7.30	19, 1888	Washington B'ks, D. C.	5.45	24-25, 1889
Modesto, Cal.	7.00	20-21, 1880	Maurepas, La.	5.42	22, 1892
Jordan's Grove, Ill.	7.00	3-4, 1892	Gainesville, Tex.	5.40	24, 1890
Pana, Ill.	7.00	3-4, 1892	Columbus, a, Miss.	5.40	6-7, 1892
Shell Beach, La.	7.00	21, 1890	Mobile, Ala.	5.34	24, 1881
Valley Head, Ala.	6.89	5-6, 1892	Fort Myer, Va.	5.30	25-27, 1889
Helema, Ark.	6.85	22-23, 1879	Sacramento, Cal.	5.28	20, 1880
Tuscumbia q, Ala.	6.84	4-5, 1892	Nevada City, Cal.	5.20	21, 1880
West End, La.	6.80	21-22, 1892	Gallinas, Tex.	5.20	17, 1891
Marengo, Ind.	6.77?	22, 1887	Norfolk, Va.	5.19	16-17, 1893
Wallace, La.	6.75	21, 1892	Saint Marks, Fla.	5.15	14-15, 1879
Hat Creek, Wyo.	6.74	21-23, 1879	Breckenridge, Minn.	5.12	10-11, 1878
Santa Rosa, Cal.	6.70	20-21, 1880	New Ulm, Tex.	5.12	23-24, 1879
Emilie, La.	6.62	21-22, 1892	Charleston, S. C.	5.09	16-17, 1879
Amite City, La.	6.57	22-23, 1890	Nashville, Tenn.	5.04	21-22, 1863
Foult City, Cal.	6.54	20-21, 1888	Els Falls, Kans.	5.04	20, 1885
Fort Sill, Ind. T.	6.46	21-22, 1879	Tomales, Cal.	5.02	20-21, 1880
Corsicana, Tex.	6.31	22, 1879	Grainfield, Kans.	5.00	27, 1888
Covington, Ga.	6.30	23, 1883	Dallas, Tex.	5.00	27, 1888
Fayetteville, N. C.	6.25	27-28, 1879	Melissa, Tex.	5.00	17, 1877
Marksville, La.	6.25	22, 1890	Weatherford, Tex.	5.00	27-28, 1888
Dardanelle, Ark.	6.20	15-16, 1890	Newport, Ark.	5.00	17, 1886
Charleston, Ill.	6.12	3-4, 1892	Lonoke, Ark.	5.00	3, 1890
Savannah, Ga.	6.11	16-17, 1879	Fort McHenry, Md.	5.00	23-26, 1889

One hour and less.

Station and state.	Amount.	Time.	Station and state.	Amount.	Time.
Philadelphia, Pa.	Inches. 0.45	h. m. 0 05	16, 1891		
Memphis, Tenn.	0.35	0 05	15, 1891		
Do.	0.30	0 05	20, 1892		
Atlanta, Ga.	0.30	0 05	7, 1892		
Indianapolis, Ind.	0.27	0 05	28, 1892		
Buffalo, N. Y.	0.25	0 05	9, 1890		
Kansas City, Mo.	0.25	0 05	17, 1890		
New Orleans, La.	0.25	0 05	15, 1891		
Dodge City, Kans.	0.25	0 05	16, 1891		
Water Works, Philadelphia, Pa.	0.25	0 05	16, 1891		
Adrian, Mich.	1.50*	0 10	5, 1888		
Philadelphia, Pa.	0.67	0 10	16, 1891		
Memphis, Tenn.	0.55	0 10	15, 1891		
New Orleans, La.	0.53	0 10	17, 1890		
Water Works, Philadelphia, Pa.	0.50	0 10	16, 1891		
Egg Harbor City, N. J.	1.39	0 15	27, 1890		
Jacksonville, Fla.	1.50*	0 20	23, 1883		
Denmark, Iowa.	1.00	0 20	24, 1890		
Titusville, Fla.	1.78	0 25	19, 1888		
Cabaniss, Ga.	2.00	0 30	1, 1874		
Denmark, Iowa.	1.87	0 30	8, 1882		
Little Rock, Ark.	1.50	0 30	6, 1882		
Black Rock, Ark.	3.42	0 40	20, 1892		
Pilot Point, Tex.	3.00	0 45	28, 1879		
Lozier, Tex.	3.50	1 00	11, 1891		

* Estimated.

SNOW (in inches and tenths).

On the 1st heavy snow was reported in the Black Hills near Rapid City, S. Dak., and at Deadwood the amount of snow, 12 to 15, was the greatest of the season. On the 3d and 4th a heavy snowstorm prevailed from Colorado and Wyoming to Iowa. At Rapid City, S. Dak., 12 fell, and the snow drifted 4 to 6 feet in depth, causing a suspension of business and traffic. At Sundance, Wyo., 1 foot of snow fell, causing loss of cattle on the ranges. Snow in the Black Hills region of South Dakota until the 8th caused loss of stock. Heavy snow fell in Utah on the 7th, a depth of 3 being noted at Logan. A report from Rapid City, S. Dak., stated that stockmen esti-